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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,224	11/12/2003	Steven T. Fink	071469-0305806	3532

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EXAMINER

MACARTHUR, SYLVIA

ART UNIT PAPER NUMBER

1763

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,224

Applicant(s)

FINK ET AL.

Examiner

Sylvia R. MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7-11, 13, 14, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirota et al (US 6,805,135).

Regarding claim 1: Hirota et al teaches an plasma etching apparatus 100 comprising a focus ring 114 (centering ring) coupled to susceptor (substrate holder) 106; and a baffle plate 110. Fig. 1 illustrates that the baffle plate comprises a plurality of passageways 110a. The baffle plate is configured to be centered within chamber as the baffle plate is coupled to the centering ring.

Regarding claim 7: The centering ring is made of Al according to col. 6 line 31.

Regarding claim 8: The baffle plate 110 is made of Al and alumina according to col. 6 lines 28-35.

Regarding claims 9-11/9,11/10: The surface of the baffle plate is covered with a film providing a protective barrier, see col. 6 lines 28-35. How this covering was formed is a product by process limitation and does not require any further structural limitation to the claim. Thus, the

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protective barrier of the baffle plate could have been formed by any of the method presented in claim 11.

Regarding claims 13/9 and 13/10: The protective barrier is alumina see col. 6 line 31.

Regarding claim 14: The passageways formed in the baffle plate are orifices according to col.6 lines 21-24.

Regarding claim 16: Fig. 1 illustrates a ring 114 comprising a first edge configured to be coupled to a substrate holder 106, a second edge configured to be proximate a wall of the plasma processing system and openings 110a permit the passage of gas therethrough. The coupling of the first edge to the substrate holder facilitates centering the ring in the plasma processing system such that a space between the second edge and said wall is substantially constant.

Regarding claim 17: According to col. 7 lines 4-19 the baffle plate is replaced by a new one.

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishimoto et al (US 6,837,966).

Regarding claim 1: Nishimoto et al teaches a method and apparatus for an improved baffle plate in a plasma processing system. Nishimoto et al teaches a plasma processing system 1 comprising a focus (centering) ring 60 configured to be coupled to said substrate holder 10; and a baffle plate 64 comprising a plurality of passageways (see col. 5 lines 49-57), wherein said baffle plate is configured to be centered within the plasma processing system by coupling the baffle plate to the centering ring, see col. 4 lines 64-67.

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Regarding claim 2: The centering ring is coupled to the substrate holder with fasteners see col. 6 lines 33-39.

Regarding claims 3 and 4: The centering ring comprises a centering feature configured to center the baffle plate on the centering ring. The centering feature is a centering edge (shield ring 62).

Regarding claims 5 and 6: The baffle plate comprises a mating feature configured to be coupled with the centering feature, see col. 6 lines 33-46 and col. 7 lines 36-47. The mating feature is a centering receptacle see col. 7 lines 34-48.

Regarding claim 7: The baffle plate is made of Al (see col. 8 line 31).

Regarding claims 8-13: The baffle is made of Al with a surface anodization layer comprising alumina, which forms the protective barrier 150. The protective layer comprises a layer of a 111 column element and a lanthanon element according to col. 7 lines 49-64.

Regarding claim 14: The one or more passageways of the baffle plate are slots see col. 6 lines 9-11.

Regarding claim 15: The at least one of the size, shape, and distribution of the passageways varies on the baffle plate, see col. 6 lines 9-19 and col. 7 lines 65- col. 8 lines 1-12.

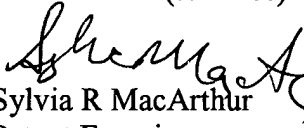
Regarding claim 16: See claim 1 of the prior art by Nishimoto et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the core hours of 9 a.m. and 3 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sylvia R MacArthur
Patent Examiner
Art Unit 1763

June 26, 2005